

Dear Bob,

I enjoyed our phone conversation today and I am looking forward to trying your programs. As I'm sure you have discovered by now the Larken cartridge schematic is on page 12 of Sinc-Link volume 11, No. 2 (Mar-Apr 93). Perhaps what you were looking for was more of a picture of the circuit board. I will not mail this until after the first of the year when I have had a chance to make copies of my working sketches of the circuit board traces. If some one is interested in making circuit boards that will be useful. The trick in figuring out what the schematic is was to identify where the traces went under the chips on the chip side of the board. The dock board wasn't as complicated as the interface board. Share this around to see if we can get it right!

I have an IBM EPROM reader/burner that I used to duplicate the Larken EPROM. It also allowed me to bring all the code into one file. ASCII data files are easy to move between IBM and Larken.

As I said on the phone I haven't been able to verify my schematic for the interface board. I have examined and re-examined the Larken and I will enclose copies of what I think the circuit is. Hopefully someone else will see something that I have overlooked. My gut feeling is that the error or omission has to do with the crystal circuit. I am more mechanical than electrical so I don't have natural instincts in this area. I have also performed a pin to every other pin without uncovering my error. The NMI function works and the kempston I/F works. Sometimes I can activate the selected drive with it and sometimes not. I have made the circuit by soldering fine wire(wire-wrap) from point to point.

My primary system is a 2068 with Larken I/F, Spectrum on the dock board, RamDisk with 8 chips, old Radio Shack monitor and 13 inch color TV, Aerco parallel printer I/F, Canon bubble jet printer (or a 9-pin Epson for Pixel Print work). I have 2 5 1/4 360K and 1 3 1/2 drives connected. I have other Sinclair/Timex equipment that I don't use much.

My RamDisk autostarts to the Hello! menu system modified with the NMI-F automatic reboot and 'catalog a disk' function. MScript, diskmanager, Larken Disk Editor, FORMAT, COPY3, VuCalc with my gas mileage file, Tasword and Ken Shoenbergers disassembler are loaded in the RamDisk also. I move quickly between programs with the NMI-F reboot option. If I am using Speccy programs I use the miniboot menu system, also with NMI-F reboot. The NMI-F reboot option doesn't work on all Speccy programs but it does work on the majority I use. I have all my disks (95 5-1/4's and 20 3-1/2's) indexed with Bob Mitchell's disk index program.

Les Cottrell

LESTER S. COTTRELL JR.
108 RIVER HEIGHTS DRIVE
COCOA, FL 32922

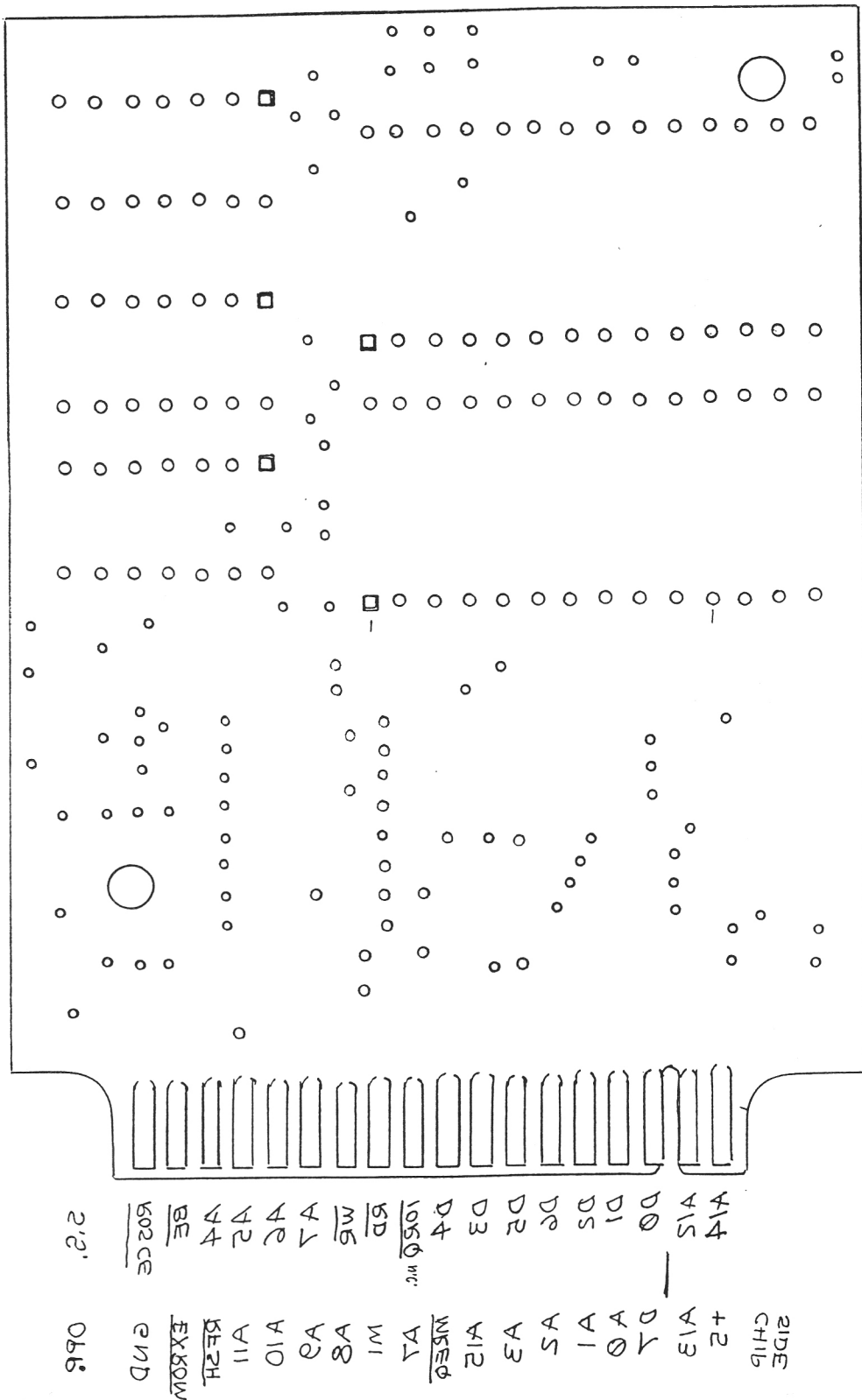
[illegible]

R5 - 5.1 K Ω , 2%
R6 - 10 K Ω
R7 - 1 K Ω
R8 - 4.7 K Ω
Q1 - 2N2222A
D1 - marked KO
all others- 1N4148

C1 - 22 μ F, 10 V elec.

C2 - .01 μ F
C3 - .047 μ F
R1 - 1.8 K Ω
R2 - 470 Ω
R3 - 1.8 K Ω
R4 - 1.8 K Ω

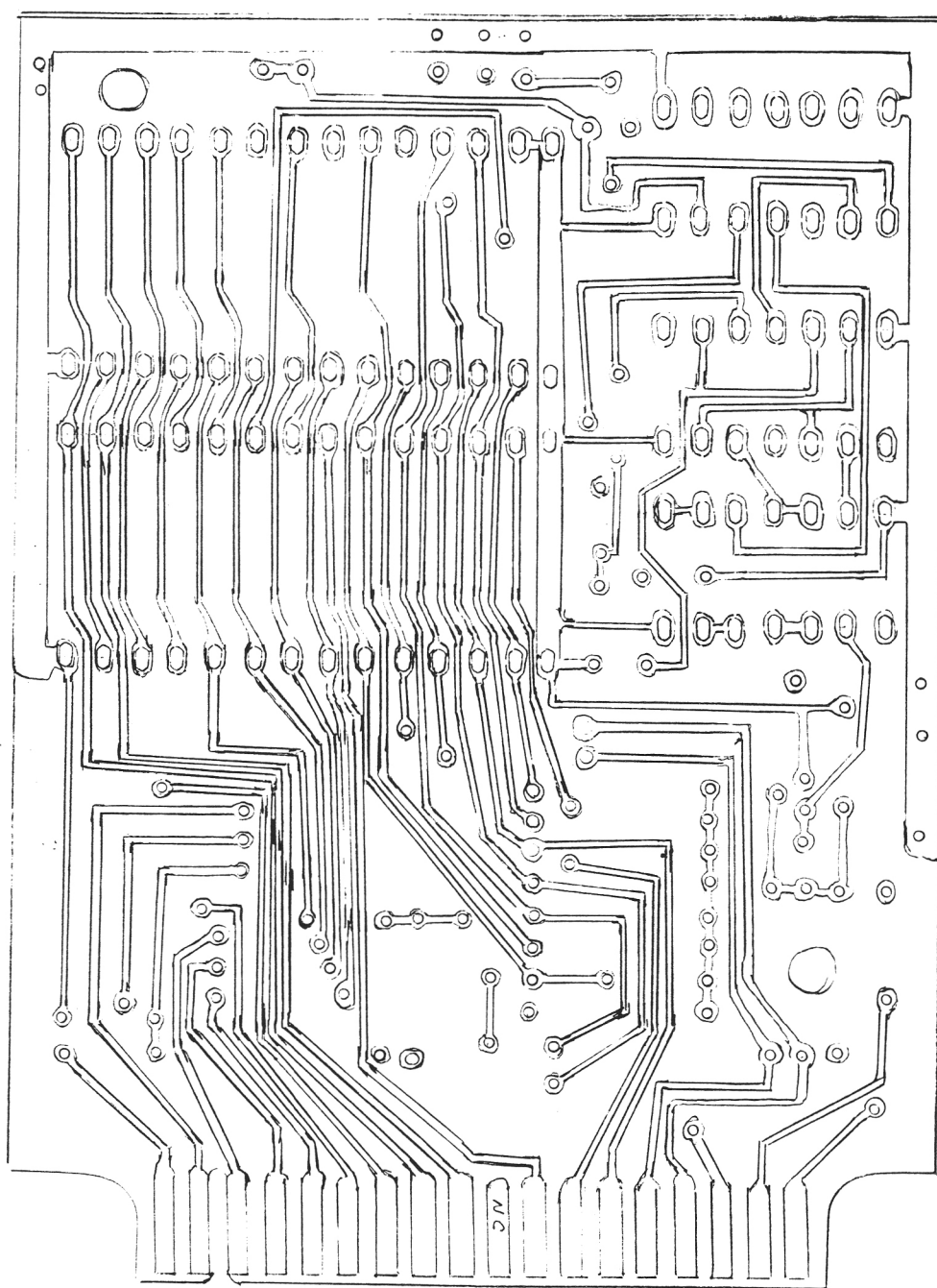
CHIP SIDE
SOLDER SIDE



blue body

CGW
FP5
5.1K
2%

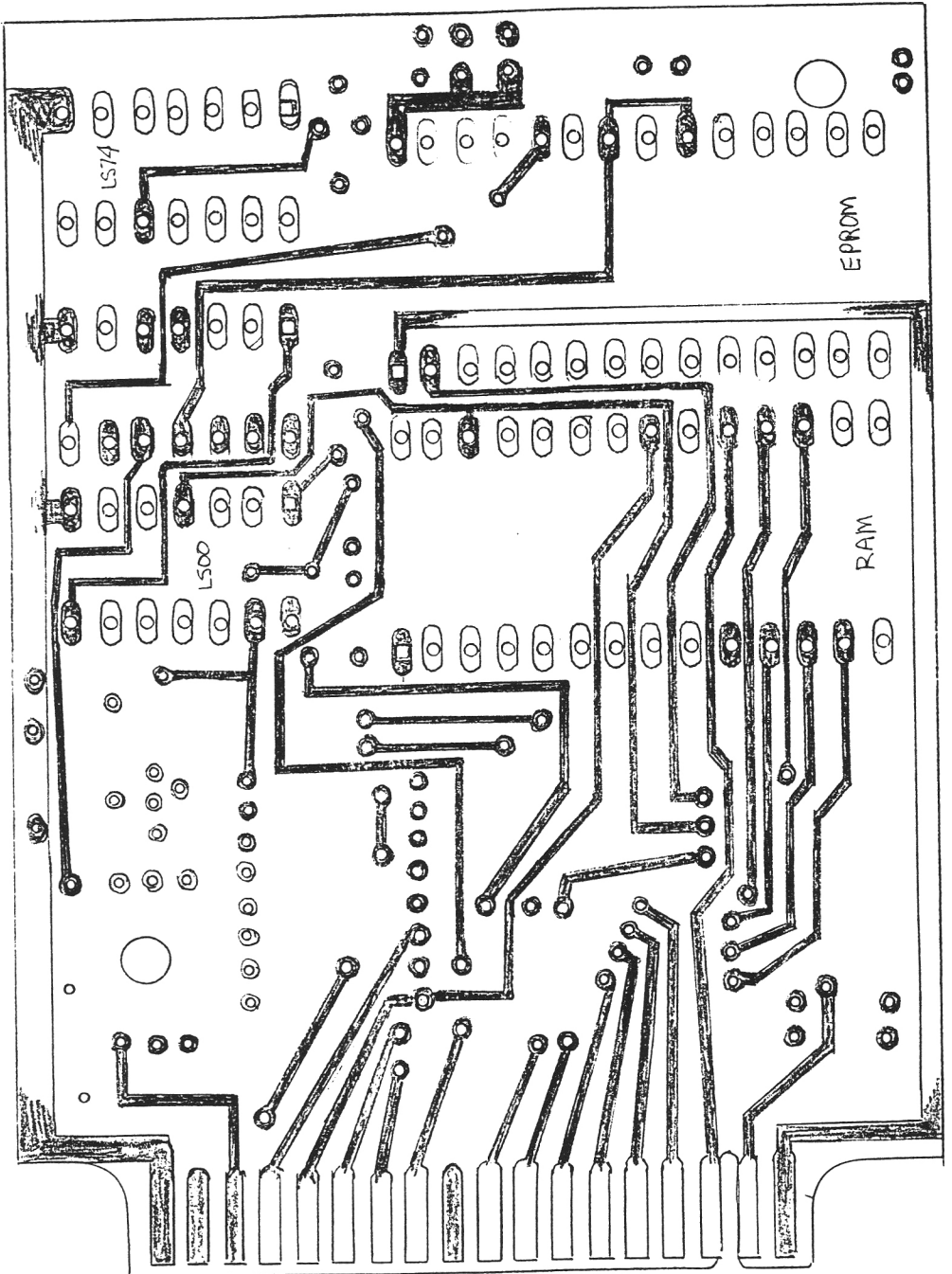
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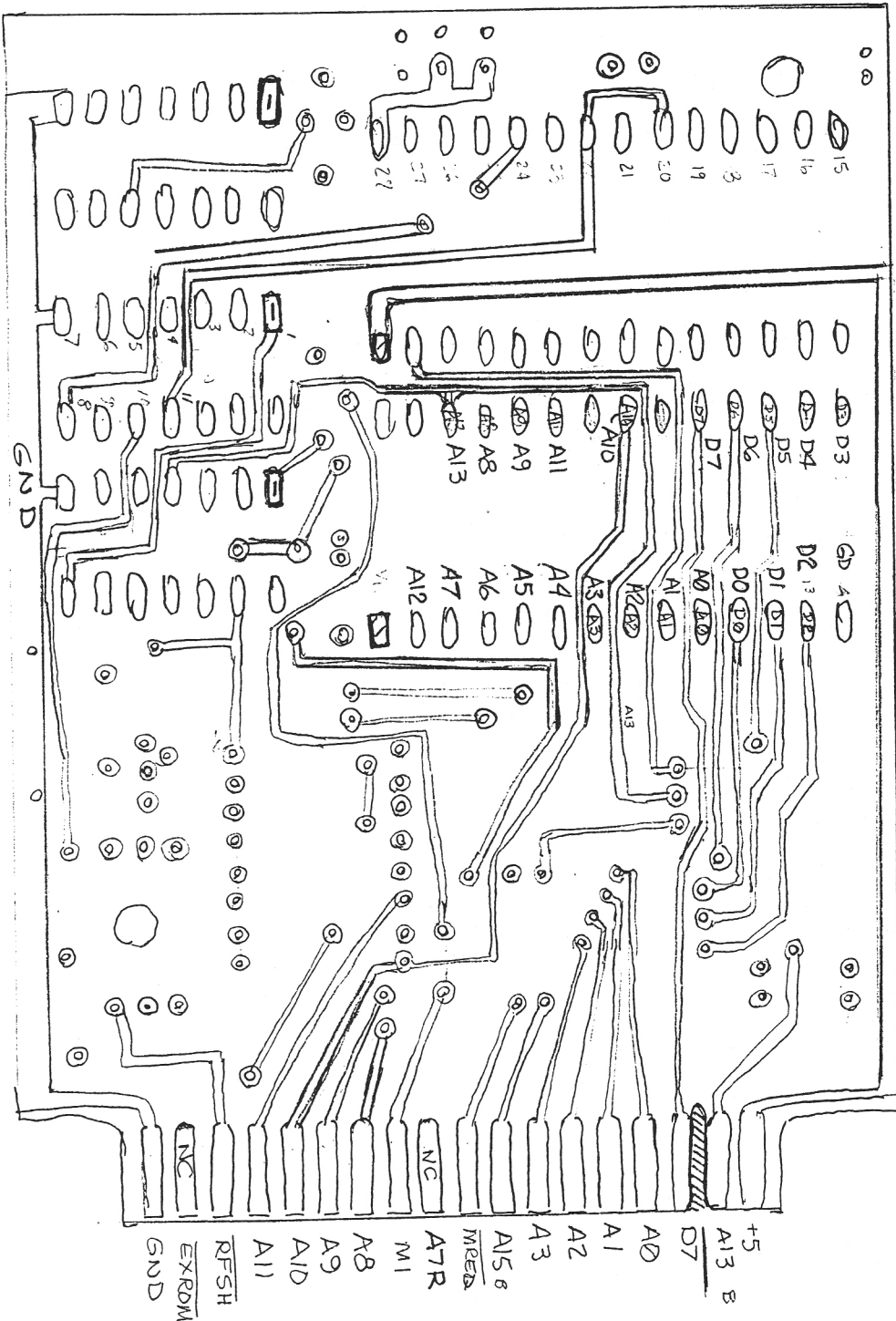
SOLDER SIDE

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A7
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D3
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D2
D0
A12
A14

CHIP SIDE
SOLDER SIDE



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TOP
CHIP SIDE
(20 PINS SIDE)

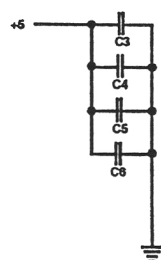
D2764A
LKDOE
EPROM

MS165
RAM
2027

74LS74

74HCTLS0

NOT YET
VERIFIED



between 174 & disk connector

value

200Ω

1800Ω

1000Ω

470Ω

391 x 5 SIP

16 Mhz crystal

diodes 1N4148

93-10-20 12:15